

CA2ALEN95
71C71

c.v

CA2 ALEN 95 1971C71
Current Action and Situational Statement
s, Background Material For Alberta 2



3 3398 00309 4678

LIBRARY
VAULT



CURRENT ACTION AND SITUATIONAL STATEMENTS

BACKGROUND MATERIAL FOR

ALBERTA THIRD TIER

PRAIRIE WATER SEMINAR

Digitized by the Internet Archive
in 2022 with funding from
Legislative Assembly of Alberta - Alberta Legislature Library

CURRENT ACTION AND SITUATIONAL STATEMENTS

BACKGROUND MATERIAL FOR

ALBERTA THIRD TIER

PRAIRIE WATER SEMINAR

Prepared By

WATER RESOURCES DIVISION


DEPARTMENT OF THE ENVIRONMENT

Edmonton, Alberta

November 17, 1971

TABLE OF CONTENTS

C.C.R.M. PRAIRIE WATER SEMINAR	1
ITEM I: WHAT CAN BE DONE TO TRANSFORM THE CURRENT PUBLIC CONCERN FOR THE ENVIRONMENT INTO ACTION IN WATER MANAGEMENT	3
DETAILED DISCUSSION OF ITEM I AT TIER TWO - PRAIRIE WATER SEMINAR	8
ITEM II: BY WHAT MEANS CAN THE COSTS OF THE RESOLUTION OF WATER MANAGEMENT PROBLEMS AND THE CONSTRUCTION OF NEW DEVELOP- MENTS BE ALLOCATED TO THE USERS IN RELATION TO THE BENEFITS RECEIVED?	11
DETAILED DISCUSSION OF ITEM II AT TIER TWO - PRAIRIE WATER SEMINAR	13
DETAILED DISCUSSION OF ITEM II AT ALBERTA FIRST TIER - PRAIRIE WATER SEMINAR	17
ITEM III: HOW SHOULD THE POSSIBILITIES FOR WATER EXPORT BE EVALUATED?	20
DETAILED DISCUSSION OF ITEM III AT TIER TWO - PRAIRIE WATER SEMINAR	22
ITEMS IV AND VI: WHAT STEPS SHOULD BE TAKEN TO IMPROVE COMMUNICATION, EXCHANGE OF INFORMATION, AND UNDERSTANDING AMONG DIFFERENT INTEREST GROUPS AND POINTS OF VIEW IN THE AREA OF WATER DEVELOPMENT AND USE?	
WHAT STEPS CAN BE TAKEN TO INFORM THE PUBLIC ON ISSUES OF WATER MANAGEMENT SO THAT THEY MAY HAVE A FULLER UNDER- STANDING OF ALTERNATIVES?	25
DETAILED DISCUSSION OF ITEM IV AND VI AT TIER TWO - PRAIRIE WATER SEMINAR	28



Digitized by the Internet Archive
in 2022 with funding from
Legislative Assembly of Alberta - Alberta Legislature Library

ITEM V:	HOW CAN THE PROCESS OF PLANNING FOR WATER MANAGEMENT BE IMPROVED TO ENSURE A RATIONAL APPROACH AND BALANCED DEVELOPMENT?	33
	DETAILED DISCUSSION OF ITEM V AT TIER TWO- PRAIRIE WATER SEMINAR	36
	DETAILED DISCUSSION OF ITEM V AT ALBERTA FIRST TIER - PRAIRIE WATER SEMINAR	39
ITEM VII:	WHAT CAN BE DONE TO RESOLVE THE CONFLICTS BETWEEN LONG TERM SOCIAL AND ENVIRONMENTAL GOALS AND SHORT TERM ECONOMIC AND POLITICAL GOALS?	43
	DETAILED DISCUSSION OF ITEM VII AT TIER TWO - PRAIRIE WATER SEMINAR	45
	DETAILED DISCUSSION OF ITEMS VII AND VIII AT ALBERTA FIRST TIER - PRAIRIE WATER SEMINAR	47
ITEM VIII:	HOW SHOULD PRIORITIES OF WATER USE BE ESTABLISHED?	50
	DETAILED DISCUSSION OF ITEM VIII AT TIER TWO - PRAIRIE WATER SEMINAR	52
	DETAILED DISCUSSION OF ITEMS VII AND VIII AT ALBERTA FIRST TIER - PRAIRIE WATER SEMINAR	54
ITEM IX:	WHAT CAN BE DONE TO IMPROVE CO- ORDINATION AMONG GOVERNMENT AGENCIES?	57
	DETAILED DISCUSSION OF ITEM IX AT TIER TWO - PRAIRIE WATER SEMINAR	59
ITEM X:	HOW CAN LEGISLATION AND IMPLI- MENTATION BE IMPROVED IN WATER MANAGEMENT?	61
	DETAILED DISCUSSION OF ITEM X AT TIER TWO - PRAIRIE WATER SEMINAR	63

APPENDIX 1: DISCUSSION TOPICS COMPILED FROM
FIRST TIER SEMINARS HELD IN
ALBERTA, SASKATCHEWAN AND
MANITOBA

APPENDIX 2: NETWORK DIAGRAM

C. C. R. M. PRAIRIE WATER SEMINAR

Review of Procedure

1. All of the items, issues, priorities, etc. arising out of the three provincial 1st tier seminars were assembled into 10 groups such that all items within each group were similar in nature. A general statement was then formulated for each group, and these were the items to which the delegates at the 2nd tier addressed themselves.
2. At the 2nd tier seminar, each of the workshop groups of delegates considered one of the 10 items, (Items IV and VI were combined) and the results of their deliberations were tabulated.
3. It was agreed by the Alberta delegates following the 2nd tier sessions, that the Water Resources Division would provide as much information as is available respecting each of the 10 items. This information would be given to each of the 1st tier delegates for discussion with other members of the agency or organization which they represent. Each agency or organization may wish to re-assess the item in the light of the information made available, and accordingly may wish to proceed along the lines of the following suggestion:
 - (a) Eliminate from further consideration those items which do not now appear to be major issues.
 - (b) With respect to the remaining items, assess the results of the 2nd tier workshop recommendations.
 - (c) Establish agreement or disagreement with the recommendations, identify gaps, identify areas requiring additional emphasis, make new recommendations or resolutions, etc.
 - (d) Through the above process provide the delegate with some specific and concrete material to present to the 3rd tier sessions.
4. During the first day of the 3rd tier sessions, the delegates can review the recommendations from each of the organizations represented, identify similarities and differences, consolidate those of a like nature, and develop well-documented specific items for presentation and discussion with the Minister of the Alberta Department of the Environment during the second day of the seminar.

ITEM I

WHAT CAN BE DONE TO TRANSFORM
THE CURRENT PUBLIC CONCERN FOR THE ENVIRONMENT
INTO ACTION IN WATER MANAGMENT?

CURRENT ACTION AND SITUATIONAL STATEMENT

ITEM

I WHAT CAN BE DONE TO TRANSFORM THE CURRENT PUBLIC CONCERN FOR THE ENVIRONMENT INTO ACTION IN WATER MANAGEMENT?

ITEMS IN THIS GROUP FROM ALBERTA FIRST TIER*

"To establish the usefulness of public involvement in water resource management."

"Part of a water management system is public participation and public information."

SECOND TIER RECOMMENDATIONS

1. BETTER PUBLIC EDUCATION
2. IMPROVED INFORMATION SERVICES

GENERAL

1. *It is anticipated that the new government will be considering a periodic publication, perhaps similar in content and scope to the publication "WITHIN OUR BORDERS" which was published by the former administration.*
2. *In the past, a series of newspaper ads appeared in all the major newspapers of Alberta titled "DID YOU KNOW?" which outlined the various services of government departments and agencies and where to obtain related information.*

SPECIFIC

Existing

Environmental News - a monthly publication by the Department of the Environment bringing to the attention of the public current newsworthy items relative to the environment. This publication is available free of charge through the Publicity Division of the Department.

* Items from other provinces appear in Appendix I

In Preparation

1. Pamphlets and brochures on various aspects of the environment, and the activities and projects of the Department of the Environment.
2. School kits for distribution to the Junior High School level. These will include written material and colored slides on pollution, conservation, water resources, and such significant matters relative to the environment.

In the Planning Stage

1. Audio-visual presentations, including movies for presentation to high schools, universities, and the general public.
2. T.V. commercial clips, posters, informing the public on matters relative to the environment and how the individual can become involved.
3. A speakers bureau service through which the Department will make available speakers knowledgeable on various aspects of the environment.
4. The Environmental Conservation Authority is establishing a Public Advisory Committee on the Environment similar to the former Public Advisory Committee on Pollution but with expanded terms of reference to include all aspects of the environment. Many of the organizations represented at the Prairie Water Seminar will also be represented on this committee.

Other

The Environmental Conservation Authority will hold public hearings on environmental matters of public concern. One such hearing has taken place concerning the proposed management of water levels on Cooking Lake.

3. ADEQUATE MULTIDISCIPLINARY PERSONNEL IN WATER AND RELATED LAND RESOURCE AGENCIES

It is not practical to employ all disciplines in each government department or agency. Such would result in extensive and undesirable duplication.

As an alternative, specifically with respect to water resource development, a multi-agency interdisciplinary task force approach is used. This provides for the participation of all the pertinent disciplines involved in water and related land resource planning.

With respect to the Water Resources Division Task Force approach, a copy of a typical project network diagram is attached hereto showing the various activities and disciplines involved in a watershed planning study process. (Appendix 2)

This approach is also practised by other resource departments as evidenced by the current Department of Lands & Forests task force presently engaged in a land use planning study for the Foothills Region of Alberta.

All land subdivision applications adjacent to bodies of water are submitted to the Water Resources Division for comment and/or recommendations.

Applications for industrial development and mining operations are subject to the scrutiny of an inter-departmental multidisciplinary group which develops recommendations, terms and conditions to be applied to the approvals.

An interdisciplinary agency also exists in the Department of Lands & Forests which studies and recommends the kind of use which should be made of land in the Province of Alberta.

An interdisciplinary committee exists for assessing applications for oil leases, and making such recommendations as seem appropriate in the interest of proper management of the environment, before such leases are issued.

A Conservation and Utilization Committee made up of 17 members from resource or resource related departments of government inquire into and study any matter or project pertaining to the environment and make

recommendations to the Natural Resources Co-ordinating Council. The Co-ordinating Council consists of the Deputy Ministers from eight resource, or resource related, departments of government plus the chairman of the Energy Resources Conservation Board and may inquire into any matter pertaining to the environment, and review policies and programs relative to the environment, and make recommendations thereon to the Minister.

There is also a recently appointed Cabinet Committee on Natural Resources.

4. PRE-PLANNING CO-ORDINATION WITH INTERESTED AND AFFECTED GROUPS (GOVERNMENT AND NON-GOVERNMENT)

This has been a standard and fairly consistent past practice of the Water Resources Division. (Refer to network diagram Appendix 2)

Recent examples are the Public Liaison Committee established relative to the Gull Lake Project, and the similar arrangements made for the Coal Lake and Dried Meat Lake Projects.

All municipal drainage schemes under the Alberta Water Control Program at some stage usually involve a public meeting with those individuals interested or affected.

It is anticipated that this type of public involvement will be utilized to a even greater degree as future water resource development and management plans evolve.

The government co-ordination is facilitated through a multidisciplinary approach described in No. 3.

5. PUBLIC INVOLVEMENT IN ESTABLISHING ENVIRONMENTAL GOALS

This will be one of the principle functions of the Public Advisory Committee on the Environment presently being established by the Environment Conservation Authority.

6. PUBLIC INVOLVEMENT IN ENFORCEMENT OF EXISTING LEGISLATION

There has been no direct application of this recommendation

in the past, nor is such anticipated in the future, other than the normal recourse to the courts which is the privilege of every citizen.

7. REVISION AND AMALGAMATION OF RELATED LEGISLATION
TO MEET CURRENT NEEDS

This is a continuing and ongoing process by all Ministers and departments of government.

8. WIDER USE OF PUBLIC ADVISORY GROUPS BY MINISTERS

- a. To inform Minister
- b. To inform public

This in effect will be one of the outcomes of the activities of the Public Advisory Committee on the Environment.

The current Prairie Water Seminars is another means of accomplishing this end and could be fruitful in the future if a similar continuing program could be promoted.

DETAILED DISCUSSION OF ITEM I

at

TIER TWO - PRAIRIE WATER SEMINAR

REPORT OF WORK GROUP NO. 1

1. WHAT CAN BE DONE TO TRANSFORM THE CURRENT PUBLIC CONCERN FOR THE ENVIRONMENT INTO ACTION IN WATER MANAGEMENT?

1. What can public do
2. What can government do

Positive Aspects of Public Concern

1. Governments do better planning before proceeding with developments.
2. Environmental impact studies conducted.
3. Public Hearings precede development and planning.
4. Enforcement of regulations made easier.
5. Enactment of better legislation.
6. Government data and information made more readily available.

Negative

1. Pressure groups i.e. single purpose user
2. Political expediency
3. Poorly planned economic expansion.
4. Inadequate staffs; representing various disciplines.

Means of Improvement

1. Better Public Education
2. Improved Information Services
3. Adequate multi-disciplinary personnel in water and related land resource agencies.
4. Pre-planning co-ordination with interested and affected groups (government and non government).

REPORT OF WORK GROUP NO. 1 --continued

5. Public involvement in establishing environmental goals
6. Public involvement in enforcement of existing legislation.
7. Revision and amalgamation of related legislation to meet current needs.
8. Wider use of Public Advisory Groups by ministers --
 - (a) to inform minister
 - (b) to inform public

ITEM II

BY WHAT MEANS CAN THE COSTS OF THE RESOLUTION
OF WATER MANAGEMENT PROBLEMS AND THE CONSTRUCTION OF NEW DEVELOPMENTS
BE ALLOCATED TO THE USERS
IN RELATION TO THE BENEFITS RECEIVED?

ITEM

II BY WHAT MEANS CAN THE COST OF THE RESOLUTION OF WATER MANAGEMENT PROBLEMS AND THE CONSTRUCTION OF NEW DEVELOPMENTS BE ALLOCATED TO THE USERS IN RELATION TO THE BENEFITS RECEIVED?

ITEMS IN THIS GROUP FROM ALBERTA FIRST TIER

"Emphasize that those agencies and organizations that pollute water pay for cleaning it".

"Set up charges for water use relative to benefits obtained".

"Problem of allocation of the development and user costs to the benefits received".

"Methods and responsibilities for financing resolution of water management problems".

SECOND TIER RECOMMENDATIONS

1. COST-BENEFIT OR OTHER ECONOMIC STUDIES SHOULD BE CARRIED OUT TO DETERMINE ALL BENEFICIARIES AND THEIR PROPORTIONAL RELATIONSHIP.

Cost-benefit or economic studies are normally a part of most projects. The degree of sophistication can depend on the magnitude of the proposal. (See network diagram Appendix 2)

The difficulty in evaluating all benefits in terms of dollars is well recognized. Cost-benefit analyses should therefore not necessarily be the dominant factor in the decision making process. Value judgements will have to be exercised in those areas of environmental considerations which cannot meaningfully be subjected to a rigorous economic analysis.

2. CAPITAL AND OPERATIONAL COSTS REFLECTED IN TERMS OF A USER FEE SHOULD BE CHARGED TO THE BENEFICIARIES PROPORTIONATELY

This matter has been under consideration for some years. In

addition to the complexity of arriving at a user fee, the matter of general public acceptance of such charges is a significant factor. The government is currently devoting its specific attention to this matter.

Question - Should all users be charged the same rate?

3. ALL RIVER BASINS SHOULD BE MANAGED AND MANAGEMENT COSTS
TAKEN FROM GENERAL TAXATION

How does this recommendation relate to No. 2 above? Where is the line drawn between user fee for capital costs and management costs from taxation dollars?

4. NO ROYALTIES SHOULD BE CHARGED FOR THE WATER RESOURCE

This suggests a different fee structure for different uses. If the user fee was the same for all uses, the end result would in effect be a water royalty.

DETAILED DISCUSSION OF ITEM II

at

TIER TWO - PRAIRIE WATER SEMINAR

REPORT OF WORK GROUP NO. 2

2. BY WHAT MEANS CAN THE COSTS OF THE RESOLUTION OF WATER MANAGEMENT PROBLEMS AND THE CONSTRUCTION OF NEW DEVELOPMENTS BE ALLOCATED TO THE USERS IN RELATION TO THE BENEFITS RECEIVED?

No rational basis for the allocation of costs to users

i.e.

Irrigation	Charge
Municipal	No Charge
Industrial	No uniformity or no charge
Power	Charge
Recreation and Wildlife	No Charge
Pollution	No Charge

There should be a user charge based on the service and capital costs involved.

- 1) Government approach - Government absorbs the total cost
- 2) Project approach - specific users pay
- 3) Combination of (1) and (2)

Identify the Positive Factors

- 1) Cost-benefit analysis are being carried out in many cases which provides a starting point in allocating costs.
- 2) Evaluations can be made of trade-offs or alternate projects including opportunities foregone/cost.
- 3) Evaluation can be made of not carrying out the project.

TIER TWO - PRAIRIE WATER SEMINAR

Report of Work Group No. 2continued

- 4) Service and operating costs are assigned to users in irrigation projects
- 5) Power companies pay Royalties on the use of water
- 6) Legislation for assessing costs are already available.

Look to the future and list ways to strengthen each positive factor and weaken each negative factor

Positive Factors

- 1. More accurate identification of the intangible items and more accuracy in the yardsticks in the concepts that go into making the cost-benefit analysis.

There should be more realization of diverse benefits.
- 2. Increased assessments in the yardsticks used in the evaluation of what are the trade-off's; assess the project significance.
- 3. Determine the various levels of interest in the project
i.e. local
provincial (regional)
national
- 4. Costs for consumptive use and capital write-off should be charged against the users.
- 5. Charging of water Royalties should be abandoned.

TIER TWO - PRAIRIE WATER SEMINAR

Report of Work Group No. 2continued

Identify the Negative Factors

- 1) In many cases the individuals that benefit directly are few,
yet the costs are diffused over many
i.e. provincial government taxation
- 2) In the assignment of costs there is no allowance for re-distribution
of benefits.
- 3) Difficult to determine who actually benefits.
- 4) Difficult to evaluate the various benefits accurately
e.g. Social benefits
- 5) There is little or no charge for water used for municipal,
industrial, recreational, wildlife and pollution control.

Minimizing Negative Factors

- 1) Examine the secondary and tertiary economic benefits more fully
and allocate the cost accordingly.
- 2) Reapportionment of cost should be limited to compensation,
reassignment of costs on the basis of redistribution of benefits
is exceeding difficult.
- 3) There should be a recognition of the groups who actually benefit.
- 4) Public Hearing briefs should be invited to ensure that every interest
is represented. These interests can be evaluated in the cost-
benefit analysis.

TIER TWO - PRAIRIE WATER SEMINAR

Report of Work Group No. 2continued

- 5) Establish standards for the quality of the environment in the basin.

Charge a user fee for the management, cost of providing the water in the basin.

Conclusions

- 1) Cost-benefit or other economic studies be carried out to determine all beneficiaries and their proportional relationship.
- 2) Capital and Operational costs reflected in terms of a user fee should be charged to the beneficiaries proportionally.
- 3) All river basins should be managed and management costs taken from general taxation.
- 4) No royalties should be charged for the water resource.

at

ALBERTA FIRST TIER - PRAIRIE WATER SEMINAR

Topic A: Allocation of costs of development to beneficiaries and finding the financing.

New Projects

No project shall be undertaken unless benefits can be clearly demonstrated to exceed costs.

Therefore no project shall be undertaken unless there is voluntary agreement by beneficiaries to assume portions of the costs to a total of 100%.

Implications

1. Full knowledge of all interested parties.
2. Opportunity for government to identify social benefit and contribute accordingly.
3. A regional or watershed approach. (The decision and knowledge left at a level where direct benefits occur).
4. Spillover benefits will be rewarded.
Spillover damages will be taxed.
5. The market mechanism must pervade the decision.
6. Decisions for public investment must rely on a judgment by governments as to extent.
7. Public investment may be necessary where costs can not be incorporated in product price (market mechanism not applicable).

Financing

1. By taxation - could be voluntary contribution and no need to tax. Relies on local authority with final decision from body including representation by all potential contributors.

Old Projects

- a. Where original assumptions leading to construction are no longer valid.
- b. Where alternative of abandonment
 - i) is not socially acceptable
 - ii) can not be accomplished expediently.

Rehabilitation shall be financed by public investment on the condition that agreements be reached for future O & M as in new projects.

Implication

Full knowledge of consequences of rehabilitation by potential contributors.

No benefits, direct or indirect, are anyone's right. A cost and benefit allocation can be made on honest appraisal.

ITEM III

HOW SHOULD THE POSSIBILITIES FOR WATER EXPORT BE EVALUATED?

ITEM

III HOW SHOULD THE POSSIBILITIES FOR WATER EXPORT BE EVALUATED?

ITEMS IN THIS GROUP FROM ALBERTA FIRST TIER

"Western Canada is rapidly committing the available water in the populated regions to the south; additional water may be available to the north; it is time we created an awareness of the magnitude, cost, sociological and economic problems associated with the size of necessary diversion."

"To express concern regarding the export of water for increasing the arable land."

"Establishing a balance between beneficial and harmful effects of water diversion."

SECOND TIER RECOMMENDATIONS

1. WATER EXPORT SHOULD BE ACTIVELY LOOKED AT
2. A MORE KNOWLEDGEABLE APPROACH TO THIS POLITICALLY SENSITIVE AND EMOTIONAL QUESTION OF WATER EXPORT IS REQUIRED
3. MUST BE PREPARED TO RESPOND TO INTERNAL AND EXTERNAL PRESSURES TO MEET FUTURE WATER DEVELOPMENT FROM AN INFORMED BASE
4. THERE IS A NEED FOR SOME BASIC POLICY DECISIONS
E.G. WATER TO PEOPLE VS. PEOPLE TO THE WATER

No studies have been conducted in Alberta with respect to the international export of water.

Studies have been conducted relative to the physical feasibility of interbasin transfer of water supplies both within Alberta and within the Prairie Region of Canada. These studies have consisted of an inventory of

available water and the physical feasibility only of managing these water supplies through the construction of storage dams and diversion canals. On the Prairies this inventory is being conducted under the Saskatchewan Nelson Basin Study, and in Alberta under the inventory aspect of the PRIME concept.

These studies do not result in any recommendations since they do not attempt to identify specific needs with respect to water supplies. Insofar as the Alberta studies are concerned, some identification of possible future needs is attempted by the projection of historical trends. These are theoretical projections and have not been confirmed or validated by the general public.

DETAILED DISCUSSION OF ITEM III

at

TIER TWO - PRAIRIE WATER SEMINAR

REPORT OF WORK GROUP NO. 3

3. HOW SHOULD THE POSSIBILITIES FOR WATER EXPORT BE EVALUATED?

Water Export

We should be actively looking at water export. (Both positive and negative aspects)

Group unanimously agreed that more knowledgeable approach to this politically sensitive and emotional question of water export is required.

Must be prepared to respond to internal or external pressures to meet future water development from an informed base.

The group recognized the need for some basic policy decisions.

e.g. water to people vs. people to the water

Study framework should include:

1. Availability (inventory)
2. Demand
 - a) Canadian
 - b) External
3. Conceptual engineering and environmental impact
4. Engineering and environmental project planning
5. Economic and social
6. Jurisdictional
7. Financing
8. Political

TIER TWO - PRAIRIE WATER SEMINAR

Report of Work Group No. 3 continued....

1. Availability

- 1) Desk research (low cost)
- 2) Field research (moderate cost)

Sufficient data may already be available to satisfy conceptual plans, e.g. low percentage diversion scheme. In other cases Hydrological Stations may be required.

2. Demand

Determine long term Canadian needs and continue reviewing and up-dating.

3. Conceptual Engineering and Environmental Impact

- 1) Develop comprehensive physical aspects of ultimate basin utilization.
- 2) Identify environmental impact.

4. Engineering and Environmental Planning

- 1) Project design
- 2) Environmental protection planning
- 3) Costing

5. Economic and Social

- 1) Full economic analysis

) tangible
Social drawbacks) intangible
) social

- 2) Social impact

6. Jurisdictional

- early negotiations on jurisdictional problems

7. Financing

- 1) Government cost-sharing
- 2) User benefit revenue

ITEMS IV & VI

WHAT STEPS SHOULD BE TAKEN TO IMPROVE COMMUNICATION
EXCHANGE OF INFORMATION
AND UNDERSTANDING AMONG DIFFERENT INTEREST GROUPS AND POINTS OF VIEW
IN THE AREA OF WATER DEVELOPMENT AND USE?

AND

WHAT STEPS CAN BE TAKEN TO INFORM THE PUBLIC
ON ISSUES OF WATER MANAGEMENT
SO THAT THEY MAY HAVE A FULLER UNDERSTANDING OF ALTERNATIVES?

ITEM

IV WHAT STEPS SHOULD BE TAKEN TO IMPROVE COMMUNICATION, EXCHANGE OF INFORMATION, AND UNDERSTANDING AMONG DIFFERENT INTEREST GROUPS AND POINTS OF VIEW IN THE AREA OF WATER DEVELOPMENT AND USE?

AND

VI WHAT STEPS CAN BE TAKEN TO INFORM THE PUBLIC ON ISSUES OF WATER MANAGEMENT SO THAT THEY MAY HAVE A FULLER UNDERSTANDING OF ALTERNATIVES?

ITEMS IN THIS GROUP FROM ALBERTA FIRST TIER

What steps should be taken to improve communication, exchange of information, and understanding among different interest groups and points of view in the area of water development and use?

"Obtain background material regarding water resources management to more effectively serve the organizations we represent".

"Share information on how different parts of society see their water needs".

"Better discussion of communication regarding government regulation related to industry".

"Effective lines of communication between the professional both in government and the private sector and the laymen".

"Lack of information from government agencies to public often a result of secrecy clauses".

"Communication with and co-ordination by all agencies and people involved in water management".

"Lack of communication between decision makers, professionals and society".

What steps can be taken to inform the public on issues of water management so that they may have a fuller understanding of alternatives?

"Establish a program for public education relating to water use".

"Part of the water management system is public information".

"Lack of education and comprehension of pollution, environmental and water management problems and the consequences at the working man level and the private sector".

SECOND TIER RECOMMENDATIONS

1. ESTABLISHMENT OF TASK FORCE TO:

- a. study formation of a "Prairie Provinces Water Information Centre"
- b. study formation of "provincial waters information centres" in each of the province's capitals
- c. study formation of "project information centres"
- d. study possibility of appointing "water representatives" (similar to existing agricultural representatives)

No past or current action exists specifically related to the above recommendations.

2. STUDY TO BE CARRIED OUT TO EXPLORE WAYS AND MEANS OF PROVIDING MORE EFFECTIVE PUBLIC INVOLVEMENT IN WATER MANAGEMENT PROCESS: FOR EXAMPLE, PUBLIC MEMBERSHIP IN PLANNING AND OPERATIONAL GROUPS, PUBLIC HEARINGS AND THE LIKE

Refer to information provided for Item 1 as this in part is pertinent to the above recommendation.

3. PROPOSE A GREATER PROPORTION OF PROJECT AND STUDY FUNDS BE ALLOCATED TO OBTAINING PUBLIC PARTICIPATION

It is to be presumed that the existing and planned activities as outlined in the information under Item 1 will be adequately funded.

4. INVESTIGATE ENACTMENT OF LEGISLATION REQUIRING DEVELOPERS TO EXPOSE INTENTIONS

Developers' intentions are exposed to government agencies. The degree to which they may be exposed to the public varies with the circumstances.

In the case of the allocation of a water right, all applications for the use of water that have a significant relationship to public interest are advertised in the newspapers, and the public is invited to submit comments for objections. In the past all objections have been satisfactorily accommodated through such things as adjustment of plans or the appending of terms and conditions to the water right issued. It has not yet been necessary to resort to public hearings to resolve these matters; however, this course of action is available if required.

The Energy Conservation Board has provision for holding public hearings to consider applications for industrial development.

The Environment Conservation Authority has the means to conduct public hearings where the issue is of principal public concern.

It is to be expected that all major government-initiated water resource developments will be subjected to the public forum.

DETAILED DISCUSSION OF ITEM IV & VI

at

TIER TWO - PRAIRIE WATER SEMINAR

REPORT OF WORK GROUP NO. 4 and NO. 6

4. What steps should be taken to improve communication, exchange of information, and understanding among different interest groups and points of view in the area of water development and use.

6. What steps can be taken to inform the public on issues of water management so that they may have a fuller understanding of alternatives?

Communications

- public involvement
- attitude and perception surveys
- advisory councils
- public hearings
- information offices (Water representatives)
- media use
- membership in planning and operational groups
- personal contact
- conferences and seminars

Personal Contact

- | Pros |
|-----------------------------------------------------------------------------------|
| - selective; can be directed towards influential elements and particular concerns |
| - promotes good public relations |
| - quick and direct |
| - two - way flow of information |

- | Cons |
|-----------------------------------------|
| - expenses involved |
| - time consuming |
| - sensitivity to selectivity |
| - requires special communication skills |

TIER TWO - PRAIRIE WATER SEMINAR

Report of Work Group No. 4 and No. 6continued

Membership in Planning and Operational Groups

Pros

- provides for input of interest groups
- assessing expenses involved
- increase public acceptability
- broader perspective

Cons

- selection of people (number, type, competence, representation)
- assessing expenses involved.

Conferences and Seminars

Pros

- provide a forum for exchange of views
- "cross-fertilization" of ideas
- selective, quick and direct
- focus on particular concerns
- means of utilizing media
- means of identifying groups having an interest
- provides opportunity to use professional expertise.

Cons

- requires special organizational skills
- time and expenses involved
- requires follow-up procedures
- reaches limited number of people

Information Services

Pros

- provides central and continuous contact point
- promotes better understanding of programs and management
- frees technical/professional staff
- provides educational material

Cons

- information can be selected
- expense involved
- keeping information current
- selection of personnel.

Public Advisory Councils

Pros

- communication channel with interest groups (two-way)
- results in an improved management process.
- fosters public confidence
- broader perspective
- provides better technical translation

Cons

- difficulty in selection of representatives
- time consuming for those involved, particularly the lay person.
- no remuneration in most cases
- expense involved

TIER TWO - PRAIRIE WATER SEMINAR

Report of Work Group No. 4 and No. 6continued

Media Use

Pros

- ability to reach large number of people in relatively short period.
- can be organized to obtain effective public response.
- provides an opportunity for utilizing public relations personnel in media
- versatility (open line shows)

Cons

- usually one-way flow
- quality control
- expense involved
- risk of bias

.....influence public opinion.....

Public Hearings

Pros

- vehicle for disseminating information
- obtain information from public
- exposes proposals to public
- opportunity for use of the media
- helps to define scope, needs, limitations, problems, etc.

Cons

- not always a two-way flow
- too formalized
- favors vocal and organized groups
- results are difficult to evaluate.

Public Involvement

Pros

- promotes understanding
- defines goals and objectives, needs and priorities.
- public consensus
- opportunity to expose all points of view
- public commitment

Cons

- cumbersome
- expense involved
- vulnerability to vocal minorities

Attitude and Perception Surveys

Pros

- developing a process to obtain information not obtainable in other ways
- obtain image of different interest groups

Cons

- difficulty in selecting representative sample.
- difficulty in designing suitable questionnaires and forms
- difficulty in administering surveys
- static measure; not solely time dependent if repeated

TIER TWO - PRAIRIE WATER SEMINAR

Report of Work Group No. 4 and No. 6continued

Recommendations

- I. Establishment of task force to:
 - a. study formation of a "Prairie Provinces Water Information Centre"
 - b. study formation of "provincial waters information centres" in each of province's capitals.
 - c. study formation of "project information centres"
 - d. study possibility of appointing "Water representatives" (similar to existing agricultural representatives)
- II. Study to be carried out to explore ways and means of providing more effective public involvement in water management process; for example, public membership in planning and operational groups, public hearings and the like.
- III. Propose a greater proportion of project and study funds be allocated to obtaining public participation.
- IV. Investigate enactment of legislation requiring developers to expose intentions.

ITEM V

HOW CAN THE PROCESS OF PLANNING FOR WATER MANAGEMENT
BE IMPROVED TO ENSURE A RATIONAL APPROACH AND BALANCED DEVELOPMENT?

ITEM

V HOW CAN THE PROCESS OF PLANNING FOR WATER MANAGEMENT BE IMPROVED TO ENSURE A RATIONAL APPROACH AND BALANCED DEVELOPMENT?

ITEMS IN THIS GROUP FROM ALBERTA FIRST TIER

"Establish a rational approach to the development and management of our total water resource in Western Canada".

"Development of a better co-ordinated physical planning process--providing adequate time for investigation, design and development".

"Need for interdisciplinary approach for identifying water resources problems and how to solve these problems for long and short term planning".

"Grasp the proper approach to long run social planning from population planning on down".

"To look ahead to future water needs created by increased development of industrial, residential, agricultural and recreational use".

"The systems approach to water resource planning".

"Identify regionally the present major uses of water and establish the amount used now and in say 2000 AD in terms of consumption and quality".

"Plan, design and construct and manage our total western Canadian water resources throughout time in order to maximize economic, environmental and social benefits for all mankind".

"Strike a 'right' balance between current use and maintaining maximum future use options".

"Establish standards both as to quality and quantity".

"Apportion the needs of all water users based on social aspects as well as economic criteria".

"Integrate water resource management into all other aspects of resource management".

- a) "Identification of needs or problems (present or future)
- b) Formulation of all alternatives to solve these needs or problems
- c) Evaluation of these alternatives and selection of the best proposal
- d) Commitment from government and society to implement the selected alternative
- e) Operation and review to find out if the proposal serves the purpose".

"Adopt the proposal that management objectives must be obtained so as to leave a maximum of resources for other use in space and time".

"Lack of comprehensive interdisciplinary planning, both present and long range".

"Complexity of the water resource management problems and lack of effective methods to solve these problems".

"Piecemeal approach by various governments and private agencies in problem solving related to water resources".

"Making better use of technology as well as developing good techniques for predicting all these effects prior to use".

SECOND TIER RECOMMENDATIONS

- 1. PROJECT OR PROGRAM STUDIES SHOULD NOT BE CARRIED OUT UNTIL OBJECTIVE(S) CLEARLY DEFINED
- 2. AN INTERDISCIPLINARY AND DIVERSE INTERESTS APPROACH SHOULD BE FOLLOWED:
 - a. Technical
 - b. Public at appropriate times
 - c. Government(s) legislative
- 3. MISSION ORIENTED RESEARCH TO INCREASE KNOWLEDGE
- 4. PROGRAMS SHOULD NOT BE IMPLEMENTED WITHOUT PUBLIC HEARING

5. STEPS OF PLANNING SHOULD BE FOLLOWED
 - a. Identification of objective (needs, problems)
 - b. Search for alternative solutions
 - c. Evaluation and selection
 - i. economics
 - ii. environmental affects
 - d. Implementation
 - e. Review
6. ESTABLISH A SYSTEM OF SETTING PRIORITIES FOR CARRYING OUT PLANNING STUDIES
7. PROVIDE SUFFICIENT FUNDS FOR CARRYING OUT PLANNING
8. GOVERNMENTS SHOULD PROMOTE LOCAL ORGANIZATION RELATED TO WATER MANAGEMENT
9. WE DO NOT KNOW SOME OTHERS YET BUT SHOULD BE STUDIED.

All of the above recommendations are established steps in the planning process as utilized by the Water Resources Division. (See network diagram Appendix 2)

The general procedure outlined by these recommendations is also utilized for planning purposes in other parts of Canada. e.g. The St. John River Study, the Okanagan Study, the Qu'Appelle Basin Study, etc.

DETAILED DISCUSSION OF ITEM V
at
TIER TWO - PRAIRIE WATER SEMINAR

REPORT OF WORK GROUP NO. 5

5. HOW CAN THE PROCESS OF PLANNING FOR WATER MANAGEMENT BE IMPROVED TO ENSURE A RATIONAL APPROACH AND BALANCED DEVELOPMENT?

Planning

Planning should include:

- 1) Objective
- 2) In order to achieve objective the following should be answered
 - a) what should be done (activities)
 - b) how
 - c) when (scheduling and sequencing)
 - d) where (local, province region)
 - e) who should do it
 - f) what cost and who pays for it

Planning Process

- 1) Identify objective (needs or problems
 - i. present
 - ii. future)
 by (local, provincial, regional and perhaps national) financing
(local, provincial or combinations)
- 2) Search for solution of Step # 1 by (local, province, region)
- 3) Evaluation and Comparison
 - a) technical)
) from local, province, region
 - b) public)
- 4) Implementation by:
 - i. technical group
 - ii. local and users
 - iii. government

TIER TWO - PRAIRIE WATER SEMINAR

Report of Work Group No. 5continued

5) Review

- by: i. technical
- ii. local
- cost: i. beneficiaries (local users)
- ii. government
- iii. combination

Deficiencies and Constraints

1. Organizational and legislative
(who does what part)
2. Scientific short-comings (quantitizing recreation, effects on environment and ecology)
3. Public participation short-comings.
4. Methodology of carrying out planning.
 - 1) define objective
 - 2) list activities required to achieve the goal.
 - 3) sequence activities
 - 4) distribute activities among doers
 - 5) governments cost-sharing arrangements

5. Financial limitations

Recommendation

1. Project or program studies should not be carried out until objective (s) is clearly defined.

TIER TWO - PRAIRIE WATER SEMINAR

Report of Work Group No. 5continued

2. An interdisciplinary and diverse interests approach should be followed.
 - a) technical
 - b) public at appropriate times
 - c) government (s) legislative
3. Mission oriented research to increase knowledge
4. Programs should not be implemented without public hearing.
5. Steps of planning should be followed.
 - a) identification of objective (needs, problems)
 - b) search for alternative solutions
 - c) evaluation and selection
 - i. economics
 - ii. environmental effects
 - d) implementation
 - e) review
6. Establish a system of setting priorities for carrying out planning studies.
7. Provide sufficient funds for carrying out planning.
8. Governments should promote local organization related to water management.
9. We do not know some others yet but should be studied.

DETAILED DISCUSSION OF ITEM V

at

ALBERTA FIRST TIER - PRAIRIE WATER SEMINAR

Topic C: Exploring opportunities for the balanced development of water resources to satisfy man's diverse tangible and intangible requirements taking full consideration of existing technology and the complex environmental and economic ramifications manifested by this action.

Helps

1. Watershed Resource Inventory
2. Supply and demand studies
3. Co-ordination of all project planning within watershed
4. Co-ordination of interdisciplinary planning and regional socio-economic planning
5. Classification for river reaches and water bodies for potential development
6. Determination of assessment criteria
7. Research standards requirements
8. Determination of historical aspects of environmental changes
9. Determine historical aspects of social, cultural, and administrative development and pattern.
10. Project economic and social development trends
11. Research ecological inter-relationships of water-based environment
12. Educational program creating constructive awareness among society.

Hindrances

1. One national water pollution control standards
2. Lack of comprehensive assessment criteria.

3. Lack of sufficient consideration for pollution control in granting industrial and production incentives

Future

1. Development of a natural resource data bank and retrieval system
2. Population and birth control mechanism
3. Long range projection models
4. Input-output matrix of the environment

Topic E: Involvement of society governments and all technical agencies
in an interdisciplinary approach in planning interpretation and
implementation of water resources projects

Suggestions:

1. Establish an interdisciplinary co-ordinating group for review
of Water Resources projects.
2. The jurisdiction of all agencies should be clearly defined.
3. Design a mechanism for exchange of information with public
(public meetings).
4. Prepare reports in a way which all agencies and society can
understand.

ITEM VII

WHAT CAN BE DONE TO RESOLVE THE CONFLICTS
BETWEEN LONG TERM SOCIAL AND ENVIRONMENTAL GOALS
AND SHORT TERM ECONOMIC AND POLITICAL GOALS?

ITEM

VII WHAT CAN BE DONE TO RESOLVE THE CONFLICTS BETWEEN LONG TERM
SOCIAL AND ENVIRONMENTAL GOALS AND SHORT TERM ECONOMIC AND
POLITICAL GOALS?

ITEMS IN THIS GROUP FROM ALBERTA FIRST TIER

"Establish effect of present and new uses on one another, on environment and on way of life to recognize conflicts in terms of amount and quality".

"Identify means of reconciling conflicts ie. information and research on availability of water, technology, social aspects, legal framework and allocating demands to other areas or meeting demands of other areas".

"Conflict between aesthetic uses (fish, wildlife, and recreation) vs. consumptive users (industrial development)".

"One use interfering with another".

"Conflict of environmental protection vs. economic development".

"Private objectives for land tend to be short term whereas society is trying to plan for longer term, therefore some basic conflicts arise as to land use policies".

"Conflicts stemming from:

- a) Insufficiency either through supply or demand, eg. irrigation and industry
- b) Excess of flooding and drainage
- c) Use of water as a part of land or environment as a medium eg. transport, shoreline use, estuary use, and problems".

SECOND TIER RECOMMENDATIONS

I. CREATION OF PRAIRIE REGIONAL WATER ADVISORY COUNCIL

COMPOSITION:

CHAIRMAN - APPOINTED BY SEVERAL GOVERNMENTS

BOARD MEMBERS 16 - 20 - APPOINTED BY INTEREST-USER GROUPS (REGIONAL OR NATIONAL)

SECRETARIAT

ADHOC - TECHNICAL ADVISORY GROUPS

MECHANICS - SIMPLE MAJORITY - ONE VOTE/ONE MAN

TERMS OF REFERENCE OF COUNCIL

- 1) Advise governments and public on regional water policy.
- 2) Advise governments and public on proposed developments
- 3) Publicize information
- 4) To develop and maintain information system for all users
- 5) Undertake or finance research as required.

The only existing structure that comes close to complying with *this* recommendation is the Prairie Provinces Water Board. The Board is made up of representatives from each of the Prairie Provinces and two representatives from the federal government. The Board is not an administrative organization but rather an advisory group to the participating governments. To be put into effect, any recommendations of the Board are endorsed by an Order-in-Council issued by each of the governments involved.

The terms of reference are broad with respect to water management, and also include certain aspects of pollution as it related to interprovincial waters.

The Board does not directly communicate with the public. It produces reports arising out of various studies that are undertaken, and these reports, in the majority, are available for public scrutiny.

The Board shares with many other agencies of government the desire to establish and maintain adequate information systems, and is party to various studies underway for the development of better methods of obtaining basic data.

The Board does not in itself become involved in basic research, but many of its activities could be described as being applied research, particularly in the area of collecting and processing raw data.

The Department of the Environment will have a Research Division whose responsibility will be to identify research needs, and to promote and assist in the financing of this research.

DETAILED DISCUSSION OF ITEM VII
at
TIER TWO - PRAIRIE WATER SEMINAR

REPORT OF WORK GROUP NO. 7

7. WHAT CAN BE DONE TO RESOLVE THE CONFLICTS BETWEEN LONG TERM SOCIAL AND ENVIRONMENTAL GOALS' AND SHORT TERM ECONOMIC AND POLITICAL GOALS?

Subject

How best to ensure that economic and political goals are consonant with long term social and environmental goals.

Goals

1. Controlled economic development
2. Employment opportunities - multiple options
3. Capital to preserve and improve environment
4. Use full current state of art knowledge at point of time in all decision making for change.
5. Minimize environmental degradation in process of change.
6. All major decisions made in public domain

Present Situation

+

- (1) Good body of knowledge
- (2) Increased public awareness and interest
- (3) Increasing emphasis on planning
- (4) Presently using public hearings on major issues
- (5) Educated and literate public
- (6) Extensive mass media systems
- (7) More interdepartmental decision making
- (8) Organizational skills improving
- (9) Inter-regional understanding of major projects
- (10) Departmental re-organization reflecting public concern

-

- (1) Reluctance to use information from other areas
- (2) Bureaucratic silence
- (3) Inadequate system for public forums
- (4) Parochialism
- (5) Lack of quantitative measures for intangible benefits
- (6) Short political life span
- (7) Inadequate use of mass media for technical and other data
- (8) Too much political jargon
- (9) Organization skills unevenly distributed.

TIER TWO - PRAIRIE WATER SEMINAR

Report of Work Group No. 7continued

Proposal for Future

Creation of Prairie Regional Water Advisory Council

Composition:

Chairman - appointed by several governments

Board Members 16-20 - appointed by interest-user groups (regional
or national)

Secretariat

Adhoc - Technical Advisory Groups

Mechanics - Simple Majority - One Vote/One Man

Terms of Reference of Council

- 1) Advise governments and public on regional water policy.
- 2) Advise governments and public on proposed developments
- 3) Publicize information
- 4) To develop and maintain information system for all users
- 5) Undertake or finance research as required.

DETAILED DISCUSSION OF ITEMS VII & VIII
at
ALBERTA FIRST TIER - PRAIRIE WATER SEMINAR

Topic D: Lack of education and comprehension of pollution, environmental and water management problems and consequences at the working man level and public sector.

Solution:

A three-pronged attack:

Industry:

- * In-plant training programs
- * Programs to be designed and made available by government
- * Programs must be basic and related to the activities of the employee

Educational Institutions:

- * Press education authorities to establish a course of studies in environmental management at all levels
- * Provide assistance as requested

Public:

- * Literature and films (one a year) available on request and updated on a regular basis
- * News releases on studies and projects to offset adverse and often negative publicity
- * Short course in existing programs for media
- * Short course for department personnel in effective media relations
- * Programs through various media (advertising, displays, posters) to inform the public of what the government is doing in the field of environment management; and to inform the individual what he should do.

Topic B: Non-compatibility of multi-purpose water users: need for a uniform water policy in Alberta, subject to review.

It is in the public interest that information be made available to the public prior to a decision for development of a water resource project. After advertisement, a waiting period of not less than one month should be required during which time applications for public hearings shall be received by the Minister charged with the administration of the Water Resources Act.

This will provide the opportunity for interested parties to identify the potential incompatibility of the project with respect to its possible uses. These are generally grouped under: domestic water supply, irrigation, low flow augmentation, preservation of the health of the stream, wildlife protection, industrial water supply, flood control, transportation and power. Awareness of the multi-purpose potentialities will ensure that the project is developed to the optimum public interest.

Long term planning for water resource projects combined with adequate public information and the opportunity for public hearings should form the policy for water resource development.

Water policy should provide the framework for resolving conflicts in water management and utilization. Certain principles which underlie water policy require specific study, particularly to evaluate social, economic and environmental considerations.

ITEM VIII

HOW SHOULD PRIORITIES OF WATER USE BE ESTABLISHED?

ITEM

VIII HOW SHOULD PRIORITIES OF WATER USE BE ESTABLISHED?

ITEMS IN THIS GROUP FROM ALBERTA FIRST TIER

"Receive an outline of water priorities as seen by Government Water Resource Administrators".

"Strike a 'right' balance between current use and maintaining future use options".

"Apportion needs of all water users based on social aspects as well as economic criteria".

"Establishment of the priorities of uses".

"Non-compatibility of multi-purpose water users; therefore, a need for a uniform water policy in Alberta subject to periodic review".

SECOND TIER RECOMMENDATIONS

1. a. Establishment of Priorities begins with the planning process
- b. Identification of needs, short and long term
- c. Evaluation of purposes, compatibility and public support
2. PRESERVATION OF "MIRROR LEGISLATION" AMONG PRAIRIE PROVINCES
3. MORE CONSISTENCY IN ADMINISTRATIVE POLICY RE WATER USE PRIORITIES AMONG PRAIRIE PROVINCES
4. INCORPORATE IN LEGISLATION A PROVISION FOR LEGAL RECOGNITION OF "NON-DISTURBING" WATER USE
5. PERIODIC REVIEW OF PAST ESTABLISHED PRIORITIES RE CIRCUMSTANCES OF THE DAY
6. INTENSIFY PRESENT MEANS FOR PUBLIC INFORMATION AND PARTICIPATION

All these recommendations are being undertaken in one form or another, and to one degree or another, with respect to Water Resource Development in Alberta. This is evidenced in part by the information so far submitted.

DETAILED DISCUSSION OF ITEM VIII

at

TIER TWO - PRAIRIE WATER SEMINAR

REPORT OF WORK GROUP NO. 8

8. HOW SHOULD PRIORITIES OF WATER USE BE ESTABLISHED?

Allocation of Water use priorities

- Preferences Existing System in Prairies.

Legislation:

Water rights issued after:

- advertisement
- review of objectives
- provision for appeal

Preferential Uses established by legislation

- domestic
- municipal
- industrial
- irrigation
- other

Existing System

PRO	CON
- Uniformity in legislation in provinces	- Differing administration policy
- Opportunity for affected parties to object	- System reacts to expressed needs (doesn't anticipate)
- Increasing public interest	- Generally a 'right' is only acquired for disturbing use.
- Allocation constrained by downstream allocations, ex province	- Possible lengthy delays
- Flexibility to plan major water schemes by reassessment of circumstances and alteration of priorities	- No established allocations of flow interprovincially for <ul style="list-style-type: none"> - Churchill - MacKenzie basin

TIER TWO - PRAIRIE WATER SEMINAR

Report of Work Group No. 8continued

Future Action

1. Establishment of priorities begins with the planning process.
2. Identification of needs; short and long term.
3. Evaluation of purposes, compatibility and public support.
4. Economic and social benefits.
5. Continuing assessment of conditions which affect priorities.

Allocation of Water Use Priorities Recommend

- 1) Preservation of "mirror legislation" among Prairie Provinces.
- 2) More consistency in administrative policy
re: Water use priorities among Prairie Provinces.
- 3) Incorporate in legislation provision for legal recognition of
"non-disturbing" water use.
- 4) Periodic review of past established priorities
re: circumstances of the day.
- 5) Intensify present means for public information and participation.

DETAILED DISCUSSION OF ITEMS VII & VIII
at
ALBERTA FIRST TIER - PRAIRIE WATER SEMINAR

Topic D: Lack of education and comprehension of pollution, environmental and water management problems and consequences at the working man level and public sector.

Solution:

A three-pronged attack:

Industry:

- * In-plant training programs
- * Programs to be designed and made available by government
- * Programs must be basic and related to the activities of the employee

Educational Institutions:

- * Press education authorities to establish a course of studies in environmental management at all levels
- * Provide assistance as requested

Public:

- * Literature and films (one a year) available on request and updated on a regular basis
- * News releases on studies and projects to offset adverse and often negative publicity
- * Short course in existing programs for media
- * Short course for department personnel in effective media relations
- * Programs through various media (advertising, displays, posters) to inform the public of what the government is doing in the field of environment management; and to inform the individual what he should do.

Topic B: Non-compatibility of multi-purpose water users: need for a uniform water policy in Alberta, subject to review.

It is in the public interest that information be made available to the public prior to a decision for development of a water resource project. After advertisement, a waiting period of not less than one month should be required during which time applications for public hearings shall be received by the Minister charged with the administration of the Water Resources Act.

This will provide the opportunity for interested parties to identify the potential incompatibility of the project with respect to its possible uses. These are generally grouped under: domestic water supply, irrigation, low flow augmentation, preservation of the health of the stream, wildlife protection, industrial water supply, flood control, transportation and power. Awareness of the multi-purpose potentialities will ensure that the project is developed to the optimum public interest.

Long term planning for water resource projects combined with adequate public information and the opportunity for public hearings should form the policy for water resource development. Water policy should provide the framework for resolving conflicts in water management and utilization. Certain principles which underlie water policy require specific study, particularly to evaluate social, economic and environmental considerations.

ITEM IX

WHAT CAN BE DONE TO IMPROVE
CO-ORDINATION AMONG GOVERNMENT AGENCIES?

ITEMIX WHAT CAN BE DONE TO IMPROVE CO-ORDINATION AMONG
GOVERNMENT AGENCIES?ITEMS IN THIS GROUP FROM ALBERTA FIRST TIER

"Development of a better co-ordinated physical planning process--providing adequate time for investigation, design and development".

"Co-ordinate the efforts of government departments and industry in water management".

"Communication with and co-ordination by all agencies and people involved in water management".

SECOND TIER RECOMMENDATIONS

1. STRUCTURE OF FEDERAL-PROVINCIAL CONSULTATIVE COMMITTEE SHOULD BE REVIEWED WITH A VIEW TO STRENGTHENING ITS ROLE AND EXPANDING ITS SCOPE TO INCLUDE ENVIRONMENTAL AND SOCIAL IMPLICATIONS. EACH GOVERNMENT SHOULD DESIGNATE A LEAD AGENCY WITH WHICH CONTACT SHOULD BE MADE

It is suggested that there are no rigid restrictions to the role of the Federal-Provincial Consultative Committee as provided for under the Canada Water Act.

The Canada Water Act, and therefore the federal portion of the Federal-Provincial Liaison Committee, is under the jurisdiction of the Federal Department of the Environment. Similarly the provincial contingent of the committee will have strong representation from the Alberta Provincial Department of the Environment. It is to be anticipated therefore that the scope of the committee will include all environmental and social implications. The Canada Water Act itself does in part recognize the desirability of public involvement.

2. FOR PRAIRIE INTERPROVINCIAL CO-ORDINATION THE PRAIRIE PROVINCES WATER BOARD IS AN ADEQUATE VEHICLE FOR DEALING WITH WATER PROBLEMS

3. CURRENT INTERNAL FEDERAL AND PROVINCIAL ADMINISTRATIVE MECHANISMS FOR CO-ORDINATION APPEAR TO BE SATISFACTORY WITH RECENT ORGANIZATIONAL AND LEGISLATIVE CHANGES

59

DETAILED DISCUSSION OF ITEM IX
at
TIER TWO - PRAIRIE WATER SEMINAR

REPORT OF WORK GROUP NO. 9

9. WHAT CAN BE DONE TO IMPROVE CO-ORDINATION AMONG GOVERNMENT AGENCIES?

- 1) Structure of Federal-Provincial Consultative Committee should be reviewed with a view to strengthening its role and expanding its scope to include environmental and social implications. Each Government should designate a lead agency with which contact should be made.
- 2) For prairie interprovincial co-ordination the Prairie Provinces Water Board is an adequate vehicle for dealing with water problems.
- 3) Current internal Federal and Provincial administrative mechanisms for co-ordination appear to be satisfactory with recent organizational and legislative changes.

ITEM X

HOW CAN LEGISLATION AND IMPLEMENTATION
BE IMPROVED IN WATER MANAGEMENT?

ITEM

- X HOW CAN LEGISLATION AND IMPLEMENTATION BE IMPROVED IN WATER MANAGEMENT?

ITEMS IN THIS GROUP FROM ALBERTA FIRST TIER

NIL

SECOND TIER RECOMMENDATIONS

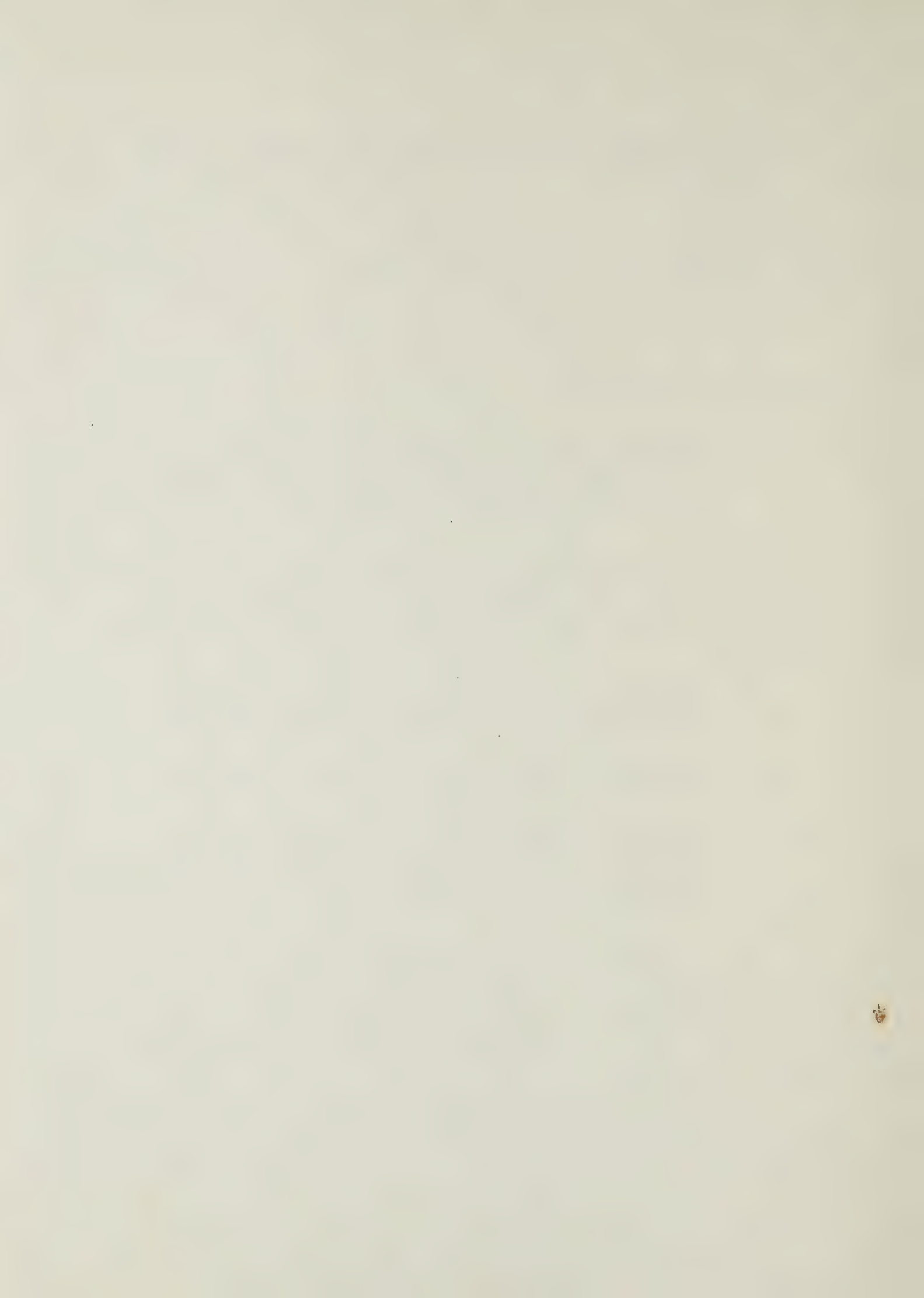
1. ESTABLISH A SINGLE INTERDISCIPLINARY MANAGEMENT AUTHORITY THROUGH LEGISLATION BY PROVINCIAL GOVERNMENT AND THE FEDERAL GOVERNMENT WHICH WILL HAVE JURISDICTION OVER WATER MANAGEMENT IN SINGLE WATERSHEDS

This concept is embodied in the Canada Water Act for purposes of establishing a watershed management area or a pollution control area. It provides for the joint federal-provincial formulation of basin plans and implementation.

2. ADOPT AN AD HOC COMMITTEE OF REPRESENTATIVES OF TIER #1 PRAIRIE WATER SEMINAR TO BRING FORTH SPECIFIC RECOMMENDATIONS REGARDING No. 1.
3. RECOMMEND THAT THESE RECOMMENDATIONS BE TAKEN TO A NATIONAL WATER SEMINAR
4. INASMUCH AS WATER CANNOT BE MANAGED IN ISOLATION WE RECOMMEND THAT THE CANADIAN COUNCIL OF RESOURCE AND ENVIRONMENT MINISTERS SPONSOR A 2ND PHASE OF SEMINARS DEALING WITH OTHER RESOURCES

It is anticipated that the Water Seminar delegates will bring forward a recommendation for a continuing medium of communication among the various public agencies as well as between these agencies and government. This has been a noticeable trend in the views expressed by seminar delegates to this point.

With respect to recommendation No. 4, the Canadian Council of Resource and Environment Ministers is currently planning a broad Natural Resource Conference to be held in 1973. This conference will be about



man and resources: How do we achieve a flexible balance between serving man's needs and desires, in maintaining the quality of the natural environment?

The program, spanning several years, includes opportunities for Canadians from all walks of life to enter the debate on what constitutes the quality of life and how this can be achieved. There will be meetings, surveys and study sessions at the regional and local levels; task forces, a workshop and a conference at the national level; open discussions in the mass media; and many special events on particular subjects.

Together people with different outlooks and experience will be able to work out the priorities of industrial development and environmental quality, of outdoor recreation and urban expansion, of resource extraction and wildlife habitats.

Consideration of these crucial questions will lead not only to conclusions on how we must modify our attitudes and institutions, but will provide the collective will to act on these convictions.

It is anticipated that this seminar will fulfill the recommendations outlined in No. 4.

TIER TWO - PRAIRIE WATER SEMINAR

REPORT OF WORK GROUP NO. 10

10. HOW CAN LEGISLATION AND IMPLEMENTATION BE IMPROVED IN WATER MANAGEMENT?

Present Situation

1. Prairie Provinces Water Board
 - a) Quantitative Apportionment
 - b) Provincial Agreement
 - c) Complementary to the Canada Water Act
2. Provincial Water Resources Act
3. Some Provincial Control Agencies
4. Provincial Water Rights Acts
5. Water Shed (Basin) Control Act
6. Environment Act
7. Water Power Acts
8. Navigable Waters Act of Canada
9. Other Acts - Health, Recreation, Fisheries, Soils, Migratory Bird Act

+

-

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| 1. Similarities of Acts in the Prairie Provinces which could serve as base | 1. Fragmentation in legislation |
| 2. Ability of Provinces to enter into agreements interprovincially. <ul style="list-style-type: none">- water demand study- water inventory- Sask.-Nelson basin- Hydrometric study- Water quality study | 2. Inconsistency |
| 3. Canadian Council of Resource Ministers | 3. Lack of scientific data |
| 4. Canada Water Act | 4. Lag between technology and legislation |
| | 5. Lack of multi-disciplinary planning |
| | 6. Political expediency vs. environmental effects. |
| | 7. Lack of project evaluation |

TIER TWO - PRAIRIE WATER SEMINAR

Report of Work Group No. 10 continued

Future Action

We recommend to the Resource Ministers:

1. Establish a single interdisciplinary management authority through legislation by Provincial Government and the Federal Government which will have jurisdiction over water management in single watersheds.
2. Adopt an adhoc committee of representatives of Tier # 1 Prairie Water Seminar to bring forth specific recommendations regarding No. 1.
3. Recommend that these recommendations be taken to a national water seminar.
4. Inasmuch as water cannot be managed in isolation we recommend that the Canadian Council of Resource Ministers sponsor a 2nd phase of Seminars dealing with other resources.

APPENDIX 1

DISCUSSION TOPICS

COMPILED FROM

FIRST TIER SEMINARS

HELD IN

ALBERTA, SASKATCHEWAN AND MANITOBA

Prairie Water Seminar

Second Tier

Regina, Saskatchewan

September 20-23, 1971.

DISCUSSION TOPICS

1. WHAT CAN BE DONE TO TRANSFORM THE CURRENT PUBLIC CONCERN FOR THE ENVIRONMENT INTO ACTION IN WATER MANAGEMENT ?

Manitoba

(D. 9)* "To make use of current popular concern related to environment and water for conservation and water management".

(D.16) "Need for meaningful regulations so that pressure groups do not have too much influence on water use".

Alberta

(B.26) "To establish the usefulness of public involvement in water resource management."

(C.23) "Part of a water management system is public participation and public information".

Saskatchewan

(C. 8) "To sufficiently inform the public and to try and get them behind any action that may be taken."

* Numbers refer to items in appendices.

2. BY WHAT MEANS CAN THE COSTS OF THE RESOLUTION OF WATER MANAGEMENT PROBLEMS AND THE CONSTRUCTION OF NEW DEVELOPMENTS BE ALLOCATED TO THE USERS IN RELATION TO THE BENEFITS RECEIVED ?

<u>Manitoba</u>	(D.15)	"Opportunity to develop an equitable water user price, province-wide and especially for Municipal and personal use".
-----------------	--------	----------------------------------------------------------------------------------------------------------------------

<u>Alberta</u>	(B. 8)	"Emphasize that those agencies and organizations that pollute water pay for cleaning it".
	(C.21)	"Set up charges for water use relative to benefits obtained".
	(D. 5)	"Problem of allocation of the development and user costs to the benefits received".
	(D. 9)	"Methods and responsibilities for financing resolution of water management problems".
	(E.A.)	See discussion.

3. HOW SHOULD THE POSSIBILITIES FOR WATER EXPORT BE EVALUATED ?

Alberta

(B.16) "Western Canada is rapidly committing the available water in the populated regions to the south, additional water may be available to the north, it is time we created an awareness of the magnitude, cost, sociological and economic problems associated with the size of necessary diversion."

(B.17) "To express concern regarding the export of water for increasing the arable land".

(D.11) "Establishing a balance between beneficial and harmful effects of water diversion".

Saskatchewan

(D. 7) "Possibility on export.

(E. 2) See discussion.

4. WHAT STEPS SHOULD BE TAKEN TO IMPROVE COMMUNICATION, EX-
CHANGE OF INFORMATION, AND UNDERSTANDING AMONG DIFFERENT
INTEREST GROUPS AND POINTS OF VIEW IN THE AREA OF WATER
DEVELOPMENT AND USE?

Manitoba

(D. 2) "Opportunity to learn from others' experience."

(D. 4) "Opportunity to bring people and groups together so that changing needs can be readily identified."

(E. 4) See discussion.

(F.1-5) See discussion.

Alberta

(B. 3) "Obtain background material regarding water resources management, to more effectively serve the organizations we represent".

(B.21) "Share information on how different parts of society see their water needs".

(B.24) "Better discussion of communication regarding government regulation related to industry".

(C.12) "Effective lines of communication between the professional both in government and the private sector and the laymen".

(D. 2) "Lack of information from government agencies to public often a result of secrecy clauses".

(D.18) "Communication with and co-ordination by all agencies and people involved in water management".

(D.22) "Lack of communication between decision makers, professionals and society".

Saskatchewan (B. 4) "To obtain an understanding of the individual interests of the various groups concerned with the use of water".

(B. 6) "Better communication between the general public and government agencies as well as conflicting interest groups".

(D. 2) "Requirement for better communication between government and public supplying information, use of T.V., co-operation between government departments, between government and university, and between government and other agencies."

(D. 6) "Full disclosure by governments of intentions and possible courses of water development. (Sask. - Nelson)".

(E. 3) See discussion.

(Fl.6) See discussion.

5. HOW CAN THE PROCESS OF PLANNING FOR WATER MANAGEMENT BE IMPROVED TO ENSURE A RATIONAL APPROACH AND BALANCED DEVELOPMENT ?

Manitoba

(B.2) "Explore means of achieving most beneficial utilization of the water resources taking everyone's interests into account".

(D.3) "Opportunity to enlarge watershed management principles".

(E.1) See discussion.

Alberta

(B.6) "Establish a rational approach to the development and management of our total water resource in Western Canada".

(B.9) "Development of a better co-ordinated physical planning process - providing adequate time for investigation, design and development".

(B.14) "Need for interdisciplinary approach for identifying water resources problems and how to solve these problems for long and short term planning".

- (B.22) "Grasp the proper approach to long run social planning from population planning on down".
- (B.28) "To look ahead to future water needs created by increased development of industrial, residential, agricultural and recreational uses".
- (B.30) "The systems approach to water resource planning".
- (C.3) "Identify regionally the present major uses of water and establish the amount used now and in say 2000 AD in terms of consumption and quality".
- (C.6) "Plan, design and construct and manage our total western Canadian water resources throughout time in order to maximize economic, environmental and social benefits for all mankind".
- (C.6) "Strike a 'right' balance between current use and maintaining maximum future use options".
- (C.11) "Establish standards both as to quality and quantity".

- (C.13) "Apportion the needs of all water users based on social aspects as well as economic criteria".
- (C.15) "Integrate water resource management into all other aspects of resource management".
- (C.17) a) "Identification of needs or problems (present or future)
- b) Formulation of all alternatives to solve these needs or problems
- c) Evaluation of these alternatives and selection of the best proposal
- d) Commitment from government and society to implement the selected alternative
- e) Operation and review to find out if the proposal serves the purpose".
- (C.25) "Adopt the proposal that management objectives must be obtained so as to leave a maximum of resources for other use in space and time".
- (D.10) "Lack of comprehensive interdisciplinary planning, both present and long range".
- (D.20) "Complexity of the water resource management problems and lack of effective methods to solve these problems".

(D.21) "Piecemeal approach by various governments and private agencies in problem solving related to water resources".

(D.4) "Making better use of technology as well as developing good techniques for predicting all these effects prior to use".

(E.2) See discussion.

(E.4) See discussion.

Saskatchewan (B.11) "Setting of Canadian water policy with consideration to population, industrial and environmental goals".

(C.1) "Optimum use of water and related land resources to meet social and economic priorities".

(C.2) "Establishment of a single authority in each region with unified federal co-ordination responsible for the management of the entire water resource in the region".

(C.9) "To ensure that management decisions are made with regard to available and relevant information".

- (C.10) "To make an assessment of water resources and their potential multiple use on an area basis, including small watersheds".
- (C.13) "De-emphasize economic control of water management".
- (C.14) "Overall long range planning be done to avoid misuse for short term returns - the plan to be established in an open (public) manner".
- (D.1) "Lack of data and research to prepare proper water management programs".
- (D.8) "Better planning of future water use and quality to avoid problems".
- (D.9) "No overall policy eg. planning is impossible without some decision as to population level in the near and distant future".
- (E.4) See discussion.

6. WHAT STEPS CAN BE TAKEN TO INFORM THE PUBLIC ON ISSUES OF WATER MANAGEMENT SO THAT THEY MAY HAVE A FULLER UNDERSTANDING OF ALTERNATIVES?

Manitoba (D.13) "Difficulty of individuals to relate their problems to the larger regional ones".

(F1-5) See discussion.

Alberta (C.16) "Establish a program for public education relating to water use".

(C.23) "Part of the water management system is public participation and public information".

(D.19) "Lack of education and comprehension of pollution, environmental and water management problems and the consequences at the working man level and the private sector".

(E.3) See discussion.

Saskatchewan (C.8) "To sufficiently inform the public and to try to get them behind any action that may be taken".

(D.6) "Inadequately educated, motivated public to participate in water management".

(E.3) See discussion.

(F.1-5) See discussion.

7. WHAT CAN BE DONE TO RESOLVE THE CONFLICTS BETWEEN LONG TERM SOCIAL AND ENVIRONMENTAL GOALS AND SHORT TERM ECONOMIC AND POLITICAL GOALS ?

Manitoba

(D.17) "Conflict between short-range economic objectives and long-range conservation goals".

(D.19-25) Specific conflicts.

(E.2) See discussion.

(E.3) See discussion.

Alberta

(C.8) "Establish effect of present and new uses on one another, on environment and on way of life and to recognize conflicts in terms of amount and quality".

(C.14) "Identify means of reconciling conflicts ie. information and research on availability of water, technology, social aspects, legal framework and allocating demands to other areas or meeting demands of other areas".

(D.6) "Conflict between aesthetic users (fish, wildlife and recreation) vs. consumptive users (industrial development)".

(D.7) "One use interfering with another".

(D.8) "Conflict of environmental protection vs. economic development".

(D.12) "Private objectives for land tend to be short term whereas society is trying to plan for longer term; therefore some basic conflicts arise as to land use policies".

(D.17) "Conflicts stemming from:

- a) Insufficiency either through supply or demand eg. irrigation and industry
- b) Excess of flooding and drainage
- c) Use of water as a part of land or environment as a medium eg. transport, shoreline use, estuary use and problems".

(E.1) See discussion.

Saskatchewan (C.1) "To strike an effective balance between multiple uses".

(D.1) "Conflict of interest leaving priorities unresolved and inhibiting action".

(D.1) "Conflicting land uses eg. agriculture vs. other purposes".

(D.2) "Conflicts between uses of water".

(E.4) See discussion.

8. HOW SHOULD PRIORITIES OF WATER USE BE ESTABLISHED ?

Manitoba (D.10) "Problem - measurement of objectives".

(D.11) "To determine weighting appropriate for local, regional and provincial interest groups".

Alberta (B.15) "Receive an outline of water priorities as seen by Government Water Resource Administrators".

(C.7) "Strike a 'right' balance between current use and maintaining future use options".

(C.13) "Apportion needs of all water users based on social aspects as well as economic criteria".

(D.1) "Establishment of the priorities of uses".

(D.4) "Non-compatibility of multi-purpose water users; therefore, a need for a uniform water policy in Alberta subject to periodic review".

(E.1) See discussion.

Saskatchewan (B.1) "Discussion of water use priorities".

(C.1) "Optimum use of water and related land resources to meet social and economic priorities".

- (D.1) "Conflict of interest leaving priorities unresolved and inhibiting action".
- (D.2) "Historically established priorities may no longer fit social needs".

9. WHAT CAN BE DONE TO IMPROVE COORDINATION AMONG GOVERNMENT AGENCIES ?

Manitoba (D.18) "Lack of co-ordination among government agencies regarding problems of the environment".

(E.1) See discussion.

Alberta (B.9) "Development of a better co-ordinated physical planning process - providing adequate time for investigation, design and development".

(C.9) "Co-ordinate the efforts of government departments and industry in water management".

(D.18) "Communication with and co-ordination by all agencies and people involved in water management".

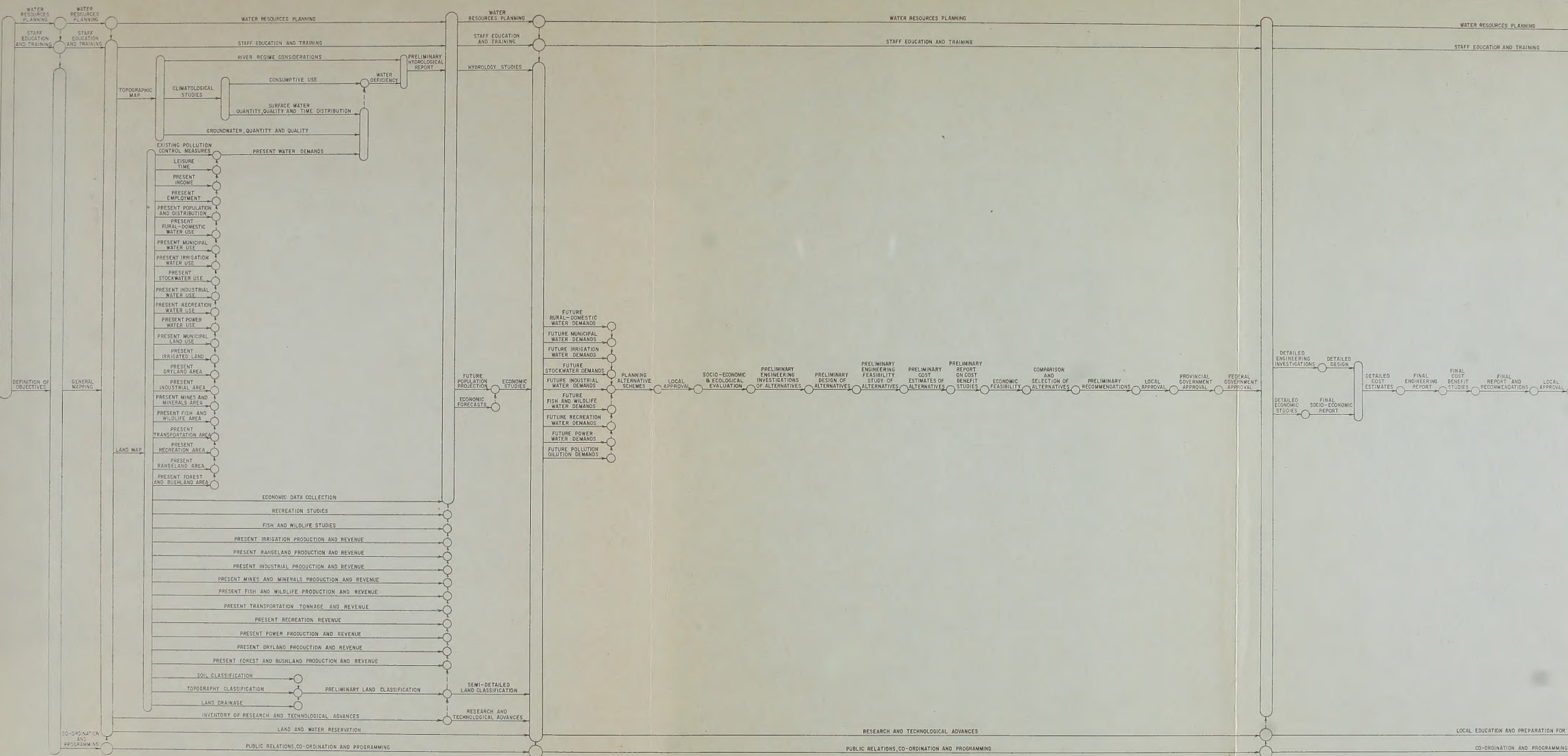
Saskatchewan (D.3) "Lack of co-ordination of all interests which could overrule the decisions made under the influence of power groups".

10. HOW CAN LEGISLATION AND IMPLEMENTATION BE IMPROVED IN
WATER MANAGEMENT ?

- | | | |
|---------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>Manitoba</u> | (D.6) | "Opportunity to use existing legislation, agencies and expertise in specialized disciplines to meet our goals". |
| <u>Saskatchewan</u> | (C.5) | "Maximum flexibility in legislation and practice of water management to permit temporary allotment of water now going unused". |
| | (D.4) | "Enforcing of existing legislation with particular regard to pollution". |
| | (D.5) | "Inadequate legislative control and lack of clear definition of jurisdictional responsibilities for developing and effecting regional water management". |

APPENDIX 2

NETWORK DIAGRAM



LEGEND		
SYMBOL	NAME	DESCRIPTION
→	ARROW	ACTIVITY USER
○	NODES	START OR END OF ACTIVITY
---	DUMMY	INDICATES ONLY DIRECTION OF FLOW

